	Application No.	Applicant(s)
Notice of Allowability	09/938,886	PATEL ET AL.
	Examiner	Art Unit
	CHAMELI C. DAS	2192

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *the amendment filed on 10/27/05*.

2. ☒ The allowed claim(s) is/are *506-533,535-541,551-557,559-586,588-592,599-607,609-621, and 624-625(newly numbered claims are 1-99).*

3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some*   c)☐ None   of the:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

      3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

    * Certified copies not received: _____ .

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.

    (a)☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached

      1)☐ hereto or 2)☐ to Paper No./Mail Date _____ .

    (b)☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____ .

    Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)

2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)

3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____

4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

5. ☐ Notice of Informal Patent Application (PTO-152)

6. ☒ Interview Summary (PTO-413), Paper No./Mail Date *12/29/05* .

7. ☒ Examiner's Amendment/Comment

8. ☒ Examiner's Statement of Reasons for Allowance

9. ☐ Other _____ .

1.   This action is in response to the amendment filed on 10/27/05.

2.   Claims 506, 530, 551, 583, 592, and 599 have been amended.

3.   Claims 616-625 have been added.

4.   Claims 1-505 (previously canceled).

5.   Claims 534, 542, 544, 558, 587, 597-598, and 608 have been canceled.

6.   Claims 543, 545-550, 593-596 and 622-623 have been canceled (see

Examiner's Amendment).

7.   Claims 506-533, 535-541, 551-557, 559-586, 588-592, 599-607, 609-621, and

624-625 have been allowed.

8.   Drawings filed on 8/24/01 have been accepted by the Examiner.

9.   The Terminal Disclaimer filed on 8/16/04 and 7/28/05 have been approved.

EXAMINER'S AMENDMENT

10.   An examiner's amendment to the record appears below. Should the changes

and/or additions be unacceptable to applicant, an amendment may be filed as provided

by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be

submitted no later than the payment of the issue fee.

       Authorization for this examiner's amendment was given in a telephone interview

with Mr. Vani Moodley applicant's attorney on 12/28/05.

       The application has been amended as follows:

In the specification:

On page 4, in the "BRIEF DESCRIPTION OF THE DRAWINGS" section,

at line 9, before "DETAILED DESCRIPTION OF THE PREFERRED

EMBODIMENTS", insert:

Figures 7A-7D are the tables showing the possible lists of bytecodes

which can cause exceptions in a preferred embodiment.

On page 6, at lines 17-18, "Figure 7 is a table showing one possible list of

bytecodes which can cause exceptions in a preferred embodiment" should be

replaced by:

Figures 7A-7D are the tables showing the possible lists of bytecodes

which can cause exceptions in a preferred embodiment.

In the claims:

Cancel claims 543, 545-550, 593-596 and 622-623.

In claim 551, line 2, before "capable" delete [[of]]

In claim 559, line 8, before "depth" delete [[the]] and insert a

In claim 585, line 2, before "depth" delete [[the]] and insert a

REASON FOR ALLOWANCE

11.   The following is an examiner's statement of reason for allowance:

The cited prior art taken alone or in combination fail to teach, in combination with

the other claimed limitations, a method for processing instructions in a central

processing unit having an execution unit and a register file, and capable of processing a

register-based instruction set and a stack-based instruction set, wherein an operand

stack for operands associated with the stack-based instruction set is maintained in the

register file, and the operands are moved between the register file and memory via at

least one of an overflow and underflow mechanism, as recited in the independent

claims 506, 530, 551, 559, 583, and 599.

The cited prior art taken alone or in combination fail to teach, in combination with

the other claimed limitations, a method for switching a processing system to an

accelerator mode, wherein stack-based instructions are executed directly in hardware;

switching a processing system to a first native mode in which the exception is handled

within a virtual machine by executing a register-based instructions; and switching the

processing system to a second native mode upon a further exception generated while in

the first native mode, wherein in the second native mode the virtual machine in non-

operative and handling of the further exception is by executing a register-based

instruction, as recited in the independent claims 540, and 592.

Any comments considered necessary by applicant must be submitted no later

than the payment of the issue fee and, to avoid processing delays, should preferably

accompany the issue fee. Such submissions should be clearly labeled "Comments on

Statement of Reasons for Allowance."

Conclusion

12.   The prior art made or record and not relied upon is considered pertinent to

applicant's disclosure.

TITLE: Providing window updates from a computer to a network interface device, US

6751665

TITLE: Integer and floating point register alias table within processor device, US
5613132 A

TITLE: Data processor with circuitry for handling pointers associated with a register
exchange operation, US 5727176 A

TITLE: Isochronous buffers for MMx-equipped microprocessors, US 5944801 A

TITLE: Apparatus and method for tagging floating point operands and results for rapid
detection of special floating point numbers, US 6009511 A

TITLE: Apparatus and method for renaming registers in a processor and resolving data
dependencies thereof, US 5524262 A.

TITLE: A performance analysis of automatically managed top of stack buffers, author:
Stanley et al, ACM, 1987.

TITLE: The Clipper Processor: Instruction set architecture and implementation, author:
Hollingsworth et al, ACM, 1989.

TITLE: Migrating a CISC Computer Family onto RISC via Object Code Translation,
author: Andrews et al, ACM, 1992.

13.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Chameli Das whose telephone number is 571-272-3696.

The examiner can normally be reached on Monday-Friday from 7:00 A.M. to 3:30

P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor Tuan Dam can be reached at 571-272-3695. The fax number for this

group is (571) 273-8300.

An inquiry of general nature or relating to the status of this application or

proceeding should be directed to the group receptionist whose telephone number

is 571-272-2100.

Chamli C. Das
CHAMELI C. DAS
PRIMARY EXAMINER
12/29/05